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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/992,430B

DATE: 08/21/2002

TIME: 15:23:22

Input Set : A:\00-1237A.ST25.txt

Output Set: N:\CRF4\08212002\I992430B.raw

C--> 3 <110> APPLICANT: Rajgarhia, Vineet
 5 <120> TITLE OF INVENTION: Methods and materials for synthesis of organic products
 7 <130> FILE REFERENCE: 00-1237-A
 9 <140> CURRENT APPLICATION NUMBER: 09/992,430B
 10 <141> CURRENT FILING DATE: 2002-08-15
 12 <150> PRIOR APPLICATION NUMBER: 60/252,541
 13 <151> PRIOR FILING DATE: 2000-11-22
 15 <160> NUMBER OF SEQ ID NOS: 65
 17 <170> SOFTWARE: PatentIn version 3.1
 19 <210> SEQ ID NO: 1
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 21 <212> TYPE: DNA
 22 <213> ORGANISM: artificial sequence
 24 <220> FEATURE:
 25 <223> OTHER INFORMATION: multiple cloning site
 27 <220> FEATURE:
 28 <221> NAME/KEY: misc_feature
 29 <223> OTHER INFORMATION: multiple cloning site
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 40 <212> TYPE: DNA
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 43 <220> FEATURE:
 44 <223> OTHER INFORMATION: multiple cloning site
 46 <220> FEATURE:
 47 <221> NAME/KEY: misc_feature
 48 <223> OTHER INFORMATION: multiple cloning site
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 60 <213> ORGANISM: Lactobacillus helveticus
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 66 <210> SEQ ID NO: 4
 67 <211> LENGTH: 32
 68 <212> TYPE: DNA
 69 <213> ORGANISM: Lactobacillus helveticus

ENTERED

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77 <212> TYPE: DNA
78 <213> ORGANISM: Pediococcus acidilactici
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84 <210> SEQ ID NO: 6
85 <211> LENGTH: 33
86 <212> TYPE: DNA
87 <213> ORGANISM: Pediococcus acidilactici
89 <400> SEQUENCE: 6
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94 <211> LENGTH: 82
95 <212> TYPE: DNA
96 <213> ORGANISM: Kluyveromyces marxianus
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125 gtcagcagca tagggaaaca cggcttttcc taccaaactc aaggaattat caaactctgc 180
127 aacacttgcg tatgcaggta gcaagggaaa tgtcatactt gaagtcggac agtgagtgtg 240
129 gtcttgagaa attctgaagc cgtattttta ttatcagtga gtcagtcac aggagatcct 300
131 ctacgccgga cgcacgtgg ccgacctgca gggggggggg gggcgctgag gtctgcctcg 360
133 tgaagaaggt gttgctgact cataccaggc ctgaatcgcc ccatcatcca gccagaaagt 420
135 gagggagcca cggttgatga gagctttgtt gtaggtggac cagttggtga ttttgaactt 480
137 ttgctttgcc acggaacggt ctgcgttgtc gggaagatgc gtgatctgat ccttcaactc 540
139 agcaaaagtt cgatttattc aacaaagccg ccgtcccgtc aagtcagcgt aatgctctgc 600
141 cagtgttaca accaattaac caattctgat tagaaaaact catcgagcat caaatgaaac 660
143 tgcaatttat tcatatcagg attatcaata ccatattttt gaaaaagccg tttctgtaat 720
145 gaaggagaaa actcaccgag gcagttccat aggatggcaa gatcctggta tcggtctgcg 780
147 attccgactc gtccaacatc aatacaacct ttaatttccc ctcgtaaaa ataaggttat 840
149 caagtgagaa atcaccatga gtgacgactg aatccggtga gaatggcaaa agcttatgca 900
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153 aaccaaaccg ttattcattc gtgattgcgc ctgagcgaga cgaaatacgc gatcgctggt 1020
155 aaaaggacaa ttacaaacag gaatcgaatg caaccggcgc aggaacactg ccagcgcacg 1080
157 aacaatattt tcacctgaat caggatatcc ttctaatacc tggaatgctg ttttcccggg 1140
159 gatcgacagt gtgagtaacc atgcatcatc aggagtacgg ataaaatgct tgatggtcgg 1200
161 aagaggcata aattccgtca gccagtttag tctgaccatc tcatctgtaa catcattggc 1260
163 aacgctacct ttgccatggt tcagaaacaa ctctggcgca tcgggcttcc catacaatcg 1320
165 atagattgtc gcacctgatt gcccgcacatt atcgcgagcc catttatacc catataaatc 1380
167 agcatccatg ttggaattta atcgcggcct cgagcaagac gtttcccgtt gaatatggct 1440
169 cataacaccc cttgtattac tgtttatgta agcagacagt tttattgttc atgatgatat 1500
171 attttttatct tgtgcaatgt aacatcagag attttgagac acaacgtggc tttccccccc 1560
173 cccctgcag gtcggcatca ccggcgccac aggtgcgggt gctggcgccct atatcgccga 1620
175 catcacccgat ggggaagatc gggctcgcca cttcgggctc atgagcgctt gtttcggcgt 1680
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180 <210> SEQ ID NO: 10

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182 <212> TYPE: DNA

183 <213> ORGANISM: Kluyveromyces marxianus

185 <400> SEQUENCE: 10

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190 tgaccaaggt caaggatgct gctaagggtt acaagccagt tccagttcct cacgctccaa 180
192 gagacaacaa gccagttgct gactctactc cattgaagca agaatgggtc tggactcaag 240
194 tcggttaagtt cctacaagaa ggtgatgttg ttctaactga aaccgggtacc tccgctttcg 300
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198 ccattggttt ca 372

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201 <210> SEQ ID NO: 11

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203 <212> TYPE: DNA

204 <213> ORGANISM: Kluyveromyces thermotolerans

206 <400> SEQUENCE: 11

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211 acgcttacgc cagaatcaag ggtatgtcct gtttgatcac caccttcggg gtcggtgagt 180
213 tgtccgcttt gaacgggtatc gccggttctt acgctgagca cgtcgggtgtc ttgcacattg 240
215 tcggtgtccc atccgtctcc gccaggcca agcagctatt gttgcaccac accttgggta 300
217 acggtgactt cactgtcttc cacagaatgt ccgccaacat ctctgagacc actgctatga 360
219 tcaactgatc agctaccgcc ccatctgaga tcgacagatg tatcagaacc acctacatta 420
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223 ctctattgga caccccaatt gacttggcct tgaagccaaa cgaccagcag gctgaggagg 540
225 aggtcatctc tactttgttg gagatgatca aggacgctaa gaaccagtc atcttggctg 600
227 acgcttgccg ttccagacac gatgtcaagg ctgagaccaa gaagttgatt gacatcactc 660
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231 tcggtggtgt ctacgtcggg accttgt 747

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234 <210> SEQ ID NO: 12

235 <211> LENGTH: 1738

236 <212> TYPE: DNA

237 <213> ORGANISM: kanamycin resistance gene fragment

239 <400> SEQUENCE: 12

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242 aacttgacaca ttaacttgaa gctcagtcga ttgagtgaac ttgatcaggt tgtgcagctg 120
244 gtcagcagca tagggaaaca cggcttttcc taccaaactc aaggaattat caaactctgc 180
246 aacacttgcg tatgcaggta gcaagggaaa tgtcatactt gaagtcggac agtgagtgtg 240
248 gtcttgagaa attctgaagc cgtattttta ttatcagtga gtcagtcacg aggagatcct 300
250 ctacgccgga cgcacgtggg ccgacctgca gggggggggg gggcgctgag gtctgcctcg 360
252 tgaagaaggt gttgctgact cataccaggc ctgaatcgcc ccatcatcca gccagaaagt 420
254 gaggagagcca cggttgatga gagctttgtt gtaggtggac cagttggtga ttttgaactt 480
256 ttgctttgcc acggaacggg ctgctgtgtc gggaagatgc gtgatctgat ccttcaactc 540
258 agcaaaagtt cgattttatt aacaaagccg ccgtcccgtc aagtcagcgt aatgctctgc 600
260 cagtgttaca accaattaac caattctgat tagaaaaact catcgagcat caaatgaaac 660
262 tgcaatttat tcatatcagg attatcaata ccatattttt gaaaaagccg tttctgtaat 720
264 gaaggagaaa actcaccgag gcagttccat aggatggcaa gatcctggta tcggtctgcg 780
266 attccgactc gtccaacatc aatacaacct attaatctcc cctcgtcaaa aataaggtta 840
268 tcaagtgaga aatcaccatg agtgacgact gaatccggtg agaatggcaa aagcttatgc 900
270 atttctttcc agacttggtc aacaggccag ccattacgct cgtcatcaaa atcactcgca 960
272 tcaaccaaac cgttattcat tcgtgattgc gcctgagcga gacgaaatac gcgatcgctg 1020
274 ttaaaaggac aattacaaac aggaatcgaa tgcaaccggc gcaggaacac tgccagcgca 1080
276 tcaacaatat tttcacctga atcaggatat tcttctaata cctggaatgc tgttttcccg 1140
278 gggatcgagc tgggtgagtaa ccatgcatca tcaggagtag ggataaaatg cttgatggtc 1200
280 ggaagaggca taaattccgt cagccagttt agtctgacca tctcatctgt aacatcattg 1260
282 gcaacgctac ctttgccatg tttcagaaac aactctggcg catcgggctt cccatacaat 1320
284 cgatagattg tcgcacctga ttgcccgcga ttatcgcgag cccatttata cccatataaa 1380
286 tcagcatcca tgttggaatt taatcgcggc ctcgagcaag acgtttcccg ttgaatatgg 1440
288 ctcataacac cccttgattt actgtttatg taagcagaca gttttattgt tcatgatgat 1500
290 atatttttat cttgtgcaat gtaacatcag agattttgag acacaacgtg gctttccccc 1560
292 cccccctgc aggtcggcat caccggcgcc acaggtgcgg ttgctggcgc ctatatcgcc 1620
294 gacatcaccg atggggaaga tcgggctcgc cacttcgggc tcatgagcgc ttgtttcggc 1680
296 gtgggtatgg tggcaggccc cgtggccggg ggactgttgg gcgccatctc cttgcatg 1738

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308 <221> NAME/KEY: misc_feature

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310 <223> OTHER INFORMATION: degenerate amplification primers

313 <400> SEQUENCE: 13

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317 <210> SEQ ID NO: 14

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319 <212> TYPE: DNA

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322 <220> FEATURE:

323 <223> OTHER INFORMATION: degenerate amplification primer

325 <220> FEATURE:

326 <221> NAME/KEY: misc_feature

327 <222> LOCATION: (1)..(17)

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328 <223> OTHER INFORMATION: degenerate amplification primers
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332 swrtcdccrt gytcacc 17
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336 <211> LENGTH: 22
337 <212> TYPE: DNA
338 <213> ORGANISM: artificial sequence
340 <220> FEATURE:
341 <223> OTHER INFORMATION: amplification primer
343 <220> FEATURE:
344 <221> NAME/KEY: misc_feature
345 <222> LOCATION: (1)..(22)
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350 gtacagttct ggatactgct cg 22
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354 <211> LENGTH: 18
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356 <213> ORGANISM: artificial sequence
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363 <222> LOCATION: (1)..(18)
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372 <211> LENGTH: 19
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374 <213> ORGANISM: Kluyveromyces thermotolerans
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380 <210> SEQ ID NO: 18
381 <211> LENGTH: 21
382 <212> TYPE: DNA
383 <213> ORGANISM: Kluyveromyces thermotolerans
385 <400> SEQUENCE: 18
386 ctacttggag ccactatcga c 21
389 <210> SEQ ID NO: 19
390 <211> LENGTH: 21
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392 <213> ORGANISM: Kluyveromyces thermotolerans
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401 <213> ORGANISM: Kluyveromyces thermotolerans

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RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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